Bay Area Air Quality Management District

939 Ellis Street, San Francisco, CA 94109
(415)771-6000
www.baaqmd.gov

This document was prepared to answer commonly asked questions about the federal Title V Permit Program and the Integrated Environmental Systems (IES) incinerators in Oakland.

Submitting Effective Comments

Verbally at a public hearing

Exercise your rights to request and attend public meetings/hearings
A public hearing on the IES permit will be held on Wednesday, November 3, 1999 at 7:00 PM at Fremont High School

In writing

The deadline of submittal of written comments for the IES permit is Wednesday, November 10, 1999.
Written comments must be submitted before the deadline to:

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109
(415) 771-6000 (office)
1 (800) 334 ODOR (complaints)

Effective comments:

Are specific in identification of permit inadequacy
Are specific in suggestion of proposed remedy
Reference pertinent regulations

Suggested outline for comment:

State who you are
State what you are commenting on
State the issue as presented in the permit
State your position/concern/issue/recommendation
Refer to pertinent law that supports your position/recommendation
Conclude by stating your opinion that this permit, as currently proposed, does not meet the identified requirement of the Clean Air Act; or, that the suggested revision will improve the permit's ability to meet the goals of the permitting program.

The Air District can address comments about the following issues:

Emission limitations
Control requirements
Operational restrictions
Monitoring requirements
Record-keeping requirements
Reporting Requirements
Testing Requirements
Public access to monitoring & compliance records

The Air District does not have the jurisdiction to address the following:

Zoning/siting
Plant appearance

Title V Process

Background

1. What is Title V (the act, the permit program goals)

Title V is one of several programs authorized by the U. S. Congress in the 1990 Amendments to the federal Clean Air Act (CAA). The intent of the program is to:

- Enhance nationwide compliance with the Clean Air Act
- Provide the basis for better emission inventories
- Provide a standard means to implement other programs in the federal Clean Air Act

The Title V program requires local and state air quality agencies to issue comprehensive operating permits to facilities that emit significant amounts of air pollutants. For all implementing agencies in the country, there are standard requirements for permit programs and permit content. Title V operating permits differ from other District issued operating permits in that they explicitly include the requirements of all regulations that apply to operations at Title V facilities.

Proposed permits undergo public and EPA review - all comments must be addressed prior to issuance. EPA has authority to terminate, modify, or revoke and re-issue a permit if cause exists. Permits are federally enforceable and may also be enforced via citizen suits. Permits must be renewed every five years with the full public notice and EPA review process. Modification procedures are dictated by EPA regulations. Fees, sufficient to administer the program, are required.

2. What's in a Title V Permit?

The principal elements of a Title V permit are:

- STANDARD CONDITIONS
- EQUIPMENT LIST
- GENERALLY APPLICABLE REQUIREMENTS
  These are general requirements that apply to any source operating in the Bay Area. Examples include: opacity limitations, nuisance regulations, prohibition of open burning.
- SOURCE-SPECIFIC APPLICABLE REQUIREMENTS
  These are requirements that have been determined to be specifically applicable to the source. They included source-specific District rules, federal New Source Performance Standards, and other rules.
- PERMIT CONDITIONS
  All existing District operating permit conditions are included in the Title V permit. These conditions may be modified during the Title V review in order to improve clarity or enforceability, eliminate inconsistencies with applicable requirements, or impose additional requirements pursuant to Title V monitoring

requirements. All modifications that occur as part of the Title V review are clearly marked, and justification is provided in the evaluation report.

- APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS
  These are the measurable limits on operating parameters and emissions, and the frequency and nature of monitoring for compliance. Monitoring can be continuous, periodic (at a specified frequency), or as needed. The frequency of monitoring is determined by the size of the source, the probability and severity of non-compliance, and the monitoring requirements of existing regulations.
- TEST METHODS
- SCHEDULE OF COMPLIANCE (if any sources are out of compliance at the time of permit issuance)
- PERMIT SHIELD
  The facility may request explicit confirmation that certain regulations are not applicable to its sources. The facility may also request that, where two monitoring or recordkeeping requirements cover the same pollutant, that only the more stringent requirement be included. The District does not allow emission limitations to be subsumed in this way.

3. How is the Title V permit a benefit to the community?

The permit contains has four new elements which protect the community:

- It clearly lays out the standards which must be met by the facility, and the monitoring and record-keeping necessary to demonstrate compliance with those standards.
- It gives communities an opportunity to obtain better access to information related to a particular facility, as well as the District's performance in enforcing requirements.
- It gives citizens the right to sue for non-compliance.
- It provides the community with the opportunity to comment on the permit's ability to determine compliance, including suggestions of better monitoring and reporting requirements.

It is not, however, an opportunity to impose additional controls. That requires either legislation or regulation.

4. What are the steps in the Title V process?

Step 1: An application is submitted by the facility operator to the District, with a copy provided to EPA.
Step 2: The application is reviewed by the District.
Step 3: A proposed permit is published for 30-day (minimum) public review and comment. A hearing may be held.
Step 4: The proposed permit is submitted by the District to EPA for review.
Step 5: The District revises the permit to address any objections made by EPA, and considering any comments received. The District issues the revised permit.
Step 6: A member of the public may appeal the District's issuance of the permit, or may petition EPA to object to the permit. This process may result in modification of the permit.

Notice of the following events will be mailed to the District's mailing list, and posted on the District's website:

- Availability of the proposed permit for review and comment
- Hearing notice for any hearings or other meetings
- Issuance of the final permit

5. Who issues the permit and how often does it need to be renewed?

The Air District issues the permit. It is reviewed and renewed every five years. The permit may be reopened before the scheduled renewal date if there is a major modification to the facility or if new requirements are adopted by the District or by EPA.

6. Under what circumstances can a Title V permit be denied?

The purpose of the permit is to put, in one place for all to see, the requirements that must be met by the subject facility. ***Noncompliance, at the time of permit issuance, is not grounds for permit denial***. But if the facility is physically incapable of meeting the requirements, and does not propose an acceptable and enforceable schedule for achieving compliance, the permit may be denied. Clear evidence that the facility is unwilling or unable to comply with applicable requirements may result in denial of the Permit.

EPA may deny or revoke a permit proposed or issued by the District on the grounds that the permit does not comply with the requirements of the Federal Clean Air Act. Before doing so, EPA must first object to the non-complying portions of the proposed permit, during its review period. If EPA fails to object, a member of the public may petition EPA to reconsider, provided the issue that forms the basis for the objection was raised during the public comment period. EPA may then decide to object to the permit. If the District does not adequately address EPA's objection, EPA may deny or revoke the permit.

The USEPA cannot deny or revoke a permit on the grounds that its issuance fails to comply with Title VI of the Civil Rights Act unless that noncompliance can be shown to also constitute or cause noncompliance with the Clean Air Act.

A request by the applicant to modify an existing Title V permit will be denied if the requested revision would not comply with applicable requirements, including Title VI of the Civil Rights Act.

7. Under what circumstances can a Title V permit be revoked?

A Title V permit may be revoked if the operator fails to comply, and demonstrates either an unwillingness or inability to come into compliance within a reasonable period.

8. What discretion does the District have in drafting a Title V permit? Will there be any new requirements or new standards contained in the Permit?

Many elements of the Title V Permit are mandatory in both form and content. For example, the Air District cannot impose tighter emission standards as part of a Title V permit. The Air District has the authority to review monitoring requirements and to require additional testing and record-keeping to ensure compliance. The Air District can

also require increased testing frequency and impose monitoring of additional parameters. The Air District can impose any permit condition that is deemed reasonably necessary to insure compliance with any applicable requirement.

9. What reports are required?

A semiannual report is required which must include:

- Operating data for all APCO-approved operating parameters (i.e., minimum sorbent feed rate, maximum waste charge rate)
- Actual highest minimum and lowest maximum operating parameter, as applicable, achieved (i.e., minimum actual sorbent feed rate, maximum actual waste charge rate)
- Identification of calendar days for which data on emission rates or operating parameters was not obtained, reasons for not obtaining the data, and a description of corrective action taken
- Identification of calendar days, times and durations of malfunctions, a description of the malfunction and the corrective action
- Identification of calendar days for which data on emission rates or operating parameters exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances, and a description of corrective actions taken
- Performance test (source test) results for any tests in the reporting period
- Any use of the bypass stack, the duration, reason for malfunction, and corrective action taken.

Public Access

10. What is the public's role?

The public may review the proposed permit and offer comment on any aspect of the draft. The District has some discretion in determining appropriate conditions and requirements. Effective comment, therefore, can be placed into two categories: mandatory requirements that have not been appropriately addressed or incorporated, and discretionary elements that may be altered to improve the permit. Comments to the Air District should address the Title V issues listed on the first page of this document. Comments should be specific in identification of permit inadequacy and in suggestion of proposed remedy. General comments are usually not effective. Comments that address non-Title V issues, while becoming part of the record, cannot result in modifications to the Title V permit.

11. Where can I find a copy of the proposed permit? Is a Spanish-language version available?

Copies of the proposed permit will be available in electronic form on the District's Website: www.baaqmd.gov

A paper copy, in English or Spanish, may be obtained by submitting a written request to

BAAQMD
939 Ellis Street
San Francisco, CA 94109
Or by calling the Public Information Office at (415) 749-4900

12. How can the public get information about the facility's operation?

A good place to start is with the District website, at www.baaqmd.gov. There you can find general information about the District regulations and programs. You can also find plant number assigned to the facility by the Air District, which will make it easier for District staff to find the information you want.

If you have questions, call the District permit engineer assigned to the plant at (415) 759-4090. The permit engineer will answer simple questions over the phone; more complex questions should be asked in writing. Requests for documents and records will be routed through the District Public Records Retrieval staff. The District will respond to all written questions and comments.

13. How can the community effectively review the draft permit without technical assistance?

District staff will talk with anybody who wants to talk about the permit. We will spend as much time on the phone, or in person, answering questions and assisting public review as the community needs. Call Steve Hill at (415)749-4673.

14. What can I do if I disagree with the District's permitting decision?

Comments made during the public review of the proposed permit will be included in the record transmitted by the District to EPA. If your comments were not incorporated into the proposed permit, you can communicate your concerns directly to EPA. If EPA staff agree that the proposed permit does not meet the requirements of the Clean Air Act, they will raise appropriate objections to the permit.

Once the District issues the permit, you can file an appeal with the Hearing Board to review the decision.

If EPA failed to object to a particular aspect of the permit, a member of the public may petition EPA to reconsider, provided the issue that forms the basis for the objection was raised during the public comment period. EPA may then decide to object to the permit.

15. What can I do if I disagree with the EPA's permitting decision?

An appeal must be filed in the United States Court of Appeals for the District of Columbia within 60 days of the EPA's final action on the permit.

16. How can the public enforce the requirements of the permit?

Citizens can assure themselves that applicable requirements are being met, and take action when they aren't. Facilities are required to prepare annual compliance summaries; these reports are available to the public. Other reports and notices may also be required. If the District does not enforce the requirements contained in the permit, the public may do so. Possible action by citizens includes: corresponding with the District to stimulate action; corresponding with EPA to stimulate action; suing the company directly for non-compliance.

Public comment

17. Haven't the people who are going to issue the permit decided that the permit will be issued?

All comments will be accepted. We are trying to state, very clearly, which issues are legally within our jurisdiction, and which are not. Comments regarding issues outside the authority of the District, while important and valid, cannot be considered in **this** process. Such comments may be considered in a different forum.

The law requires that the District issue a permit. The law does not require that the District issue the **proposed** permit. The public can certainly affect the content of the permit.

18. How long will the proposed permit be available for public comment?

The public comment period will close November 10, 1999.

19. What is the purpose of the November 3 hearing?

To receive oral public comment on the proposed permit.

Background Information about IES

20. What does this facility do?

This facility receives hospital medical waste from hospitals throughout California, and treats them. A small portion of the waste (less than 0.5%) treated by IES also comes from ships. About 15% of the waste stream is sterilized using microwaves, and disposed of in landfills. The rest is incinerated in two 1000 lb/hr incinerators, operated 24 hours per day, 5 days per week.

In 1998, the following amounts of waste, by category, were handled at the facility:

Tons of Waste in 1998

Classification	Incinerated	Microwaved & Landfilled
Medical waste labeled as requiring incineration	IES refused to report	
Other medical waste	IES refused to report	
Ship Waste (deemed to be medical waste by USDA)	0	
Other ship waste	Less than 250	
Controlled Substances	IES refused to report	
Other	IES refused to report	
Total	4609	677

21. Why was this incinerator located here?

District records are not detailed on why the current site was selected by Therm-Tec, the previous owner of IES. However, Therm-Tec was previously located at 7605 Hawley

Street, Oakland. Due to a building fire, Therm-Tec sought to relocate. Therm-Tec first submitted a permit application to relocate to 10000 Edes Avenue in Oakland. The District denied their application for an Authority to Construct for that site because Therm-Tec proposed to install incinerators which were not expected to comply with District Regulation 6-301; and were furthermore expected to create a public nuisance because residences were to the immediate west of the facility. Therm-Tec was subsequently granted an Authority to Construct new, improved incinerators at 455 High Street. The approved incinerators were expected to meet District regulations. The approved location is in the exact center of a neighborhood that is zoned for heavy industry.

22. Why wasn't an EIR prepared when the facility was first built in East Oakland?

The Air District doesn't know. We are researching this question.

23. Why wasn't an EIR prepared before the new incinerators were authorized?

The lead agency for CEQA, the Department of Health Services, determined that the replacement incinerators satisfied CEQA by meeting a categorical exemption allowed for the "replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity." CEQA regulations require the District to abide by the determination made by the lead agency. Further questions on this issue should be directed to the Department of Health Services.

24. Who has jurisdiction over this facility?

The BAAQMD has jurisdiction over air pollution issues.

The Regional Water Quality Control Board has jurisdiction over the quality of water discharged from the facility, either through the sewers or as runoff.

The Port of Oakland has jurisdiction over land use.

The Department of Toxic Substances Control has jurisdiction over waste management activities.

The state legislature can impose specific requirements that must be implemented by any of the above agencies. State law may also be changed through the California Initiative process.

USEPA has oversight over air and water quality, and may intervene if local regulators do not enforce compliance with federal requirements.

25. Who can shut this facility down? Under what circumstances?

The District can seek an "Order of Abatement." A facility operating under an order of abatement is subject to special requirements and enhanced penalties for non-compliance.

The District can seek revocation of the facility's operating permit and/or its Title V permit. Operation without either permit is illegal. The District can seek a legal injunction to cease operations if a facility operates without a valid operating permit.

USEPA has oversight over air and water quality, and may intervene if local regulators do not enforce compliance with federal requirements.

ANYONE can seek an injunction to cease operations if a facility operates without a valid Title V permit.

Compliance

Complaints

26. Have there been any complaints about the facility?

From 1/1/96 to 9/1/99, the District has received a total of 24 complaints naming IES, 3 of which were confirmed. Most complaints allege smoke and/or odor.

Year	Confirmed complaints	Unconfirmed complaints
1996	0	8
1997	0	7
1998	3	6
1999 (through 8/99)	0	0

Violations

27. What happens if the facility violates the permit?

Every time a condition of the permit is violated, the following occur: the operator is required to report the violation (some violations require immediate reporting, others may be reported in summaries); the District will issue a notice of violation; the facility will be fined.

If violations are repeated, or several violations occur, the District will prepare a case summary; District staff will meet with facility operators to determine the cause of the violation, and actions to be taken to prevent recurrence. If voluntary measures fail to resolve the problem, the District may seek an Order of Abatement, which imposes additional requirements and increases penalties for non-compliance. The District can seek revocation of the facility's operating permit and/or its Title V permit. Operation without either permit is illegal. The District can seek a legal injunction to cease operations if a facility operates without a valid operating permit. ANYONE can seek a legal injunction to cease operations if a facility operates without a valid Title V permit.

28. What is EPA's penalty policy?

EPA's goal in assessing penalties is to make sure they are high enough to discourage facilities from violating laws, regulations, and permit requirements in the future. The

penalties must be sufficiently high so that facilities repay any economic benefit they enjoyed through not complying with laws and regulations. Also factored in is the seriousness of the offense, e.g., the actual or possible harm caused by the violation and the toxicity of the pollutant involved. In addition, EPA makes sure that noncomplying facilities come into compliance as part of concluding the enforcement action, typically through a consent decree or order filed with the court. EPA's policy for assessing penalties under the Clean Air Act is a public document : "Clean Air Act Stationary Source Civil Penalty Policy," Oct. 25, 1991, available on EPA's website at http://es.epa.gov/oeca/ore/aed/comp/index.html.

29. Have there been any successful citizen enforcement actions under Title V?

Not to our knowledge. The program is new (fewer than one-third of the permits have been issued), and there has not been enough time for challenges to have made it through the court system. Arguably the clarification of requirements has improved compliance; and, under closer public scrutiny (or as a result of public prodding), potential citizen enforcers may see agency enforcement efforts be adequate.

30. How often does a District inspector visit this facility?

In the last year, the primary District Inspector has visited the site approximately 27 times. Backup inspectors have also visited the site several times, as have several members of the District's management staff.

The plant is visited once yearly for an intensive, overall audit. Periodically throughout the year, the plant records are inspected to determine compliance. These records include charts showing opacity, carbon monoxide and oxygen levels, logs of incineration and baghouse temperatures, calculations of waste feed, and maintenance logs.

31. What does she do when she is there?

District inspectors can visit the plant for a variety of reasons: complaint investigations, breakdown investigations, records audits, chart audits, and issuance of Notices of Violation (NOVs). Some inspections are announced—those inspections that would require a lengthy visit and hours of record audits. Most inspections are a surprise. Surprise inspections can include records audits and plant walkthroughs and all observations are recorded in the inspection/complaint/breakdown/NOV reports.

It is important to note that the inspector does not simply overview the data on records and chart audits. Each day of records and each minute of chart data is scrutinized and compared against the regulation standards to determine compliance.

32. What is the facility's compliance history?

IES has received a total of 55 NOVs since the new incinerators became operational in 1996. NOV distribution is as follows:

YEAR	NUMBER OF NOVs
1996	9
1997	21
1998	19
1999	7
	TOTAL IS 55

OFFENSE	DESCRIPTION	NUMBER OF CITATIONS
1-301	Public Nuisance	1
1-522.4	Unreported Inoperative Monitor	7
1-522.6	Failure to maintain O2 monitor	5
1-522.7	Failure to report indicated excess within 96 hours	8
1-522.8	Failure to submit monthly report on time	2
2-1-307	Permit conditions	33
6-301	Opacity	1

(NOTE—number of citations is more than the number of NOVs because some NOVs cite more than one regulation.)

The bulk of the NOVs are due to violations of permit condition requirements. The permit is violated when the plant has an uncontrolled bypass. During a bypass, the plant is no longer running the gas stream through the required abatement equipment. If IES requests breakdown relief, and relief is denied, a violation of the permit condition is cited. Some of the NOVs for this permit conditions were for breakdowns that were reported, but not reported in time (immediately with care for safety).

One permit condition violation in 1999 was due to a recordkeeping deficiency. Not all of the required records and calculations were available at the time of the compliance inspection during January 1999. After the inspection, the records and calculations were provided. Most of the records (but not the calculations) were on computer backup tapes that were inaccessible at the time of inspection. These tapes were provided and the records are now totally complete. IES has revised its records to prevent a recurrence of this problem.

The Regulation 1, Section 500 violations are mostly administrative reporting violations. The plant is required to notify the District whenever a monitor (CO, O2, or opacity) is inoperative and whenever a possible excess is observed. The plant has not reported these violations in a timely manner in the past. The purpose of the inspection audit is to look for these issues and compare them to the report log from the plant. Any differences in the charts are copied and sent to the District's Source Test Section for evaluation. If Source

Test determines that an excess occurred or that the monitor was not operating properly, an NOV is issued.

A full compliance audit of all records and charts took place in January 1999. Both incinerators were deemed "in compliance".

33. Has IES done anything lately to address violations?

Every violation results in an investigation, involving IES operation & management staff, to identify problem and develop approaches to avoid repetition. For example, recording NOVs resulted in a complete redesign of the computer recording and reporting procedure.

IES' violation history, as measured by number of Notices of Violation, peaked in 1995. The District took abatement action in 1995, requiring IES to replace their old incinerators (which were not capable of complying) with new ones. The new incinerators were installed in 1996, and the number of violations has fallen off. The Air District will continue to inspect this facility, working towards the achievable goal of zero violations.

34. What penalties have been imposed on IES?

The old incinerators were subject to an order of abatement that resulted in their closure and replacement.

Since the beginning of 1997, 25 NOVs have been settled for a total of $24,200 ($968/NOV average); 15 NOVs are currently being reviewed for further action.

35. Why have penalties against IES been so low, especially given their poor compliance history?

Settlement penalties at IES have been collected following the usual District standards and procedures. IES has been treated no differently than any other facility with its record of compliance and responsiveness.

36. Doesn't the facility's compliance history show that the facility operators are either unable or unwilling to comply with existing requirements? Why do you think they are any more likely to comply with the new permit?

The NOV and breakdown history at the plant shows that there has been a big improvement. The number of NOVs has been reduced and the number of breakdowns has been reduced. Several of the 1999 NOVs were actually issued for non-compliance that occurred in 1998. The plant has shown improved commitment to monitoring and reporting requirements. Breakdown frequency has decreased and the plant has shown commitment to determining the cause of breakdowns and implementing preventative maintenance or other measures to avoid future breakdowns of the same type.

37. How much dioxin above the permit limits has been released?

None. IES is permitted to emit, on average, 10 nanograms of dioxin as TEQ per kilogram of waste burned (TEQ is an abbreviation for "Toxic Equivalency." It allows the use of a

single number to represent the combined emissions of all dioxin species). Based on six sets of dioxin source tests, controlled dioxin emissions average 1 nanogram of dioxin as TEQ per kilogram of waste burned or approximately 10 times lower than the permitted level. Uncontrolled dioxin emissions during a bypass are estimated to be 100 times higher than normal emissions. Since IES does not operate both incinerators continuously, it emits less dioxin that it is permitted to emit. The emissions of dioxins (and other toxic compounds) from IES are also limited by a permit condition that requires that the quantity of waste incinerated be held below that which would result in a 10 in a million maximum cancer risk

38. Why did it take 15 years to shut down the dirty old incinerators?

Medical waste incineration, especially at large hospitals, was once a common practice in the District and employed incinerators less sophisticated than the "dirty" incinerators at IES. Since the adoption of Regulation 11, Rule 13 in January 1991, all Air District hospitals have stopped burning medical waste. That rule subjected existing incinerators to a dioxin emission limit. That rule also required the installation of a Continuous Emission Monitor (CEM) to measure the "Opacity of stack emissions, or other indicator of particulate matter which is approved by the APCO." After installing an opacity meter, IES recorded several opacity excesses. IES argued that the excess opacity was, to a large extent, caused by a combination of water and steam. IES initially sought a variance from the opacity limit in order to develop another means to demonstrate compliance. During the variance proceedings, however, IES decided to replace the existing incinerator systems rather than pursue an "other indicator of particulate matter which is approved by the APCO or upgrading their filtration system to reduce stack opacity.

In summary, the District did not have sufficient evidence to require such an expensive action until the early '90s, and the extreme measure of replacing the incinerators was not justified until all other alternatives were considered or attempted, and rejected.

39. The District's policy is to initiate enforcement proceedings when 5 or more notices of violation are issued in a year. Why has this policy not been followed for IES?

There is no hard number of NOVs that requires or motivates the District to pursue enforcement action against a plant. Each case is evaluated separately. In addition, each case is evaluated as to the most recent compliance status or trend. For example, we do not hold plants accountable for violations that occurred 10 years previously, nor do we hold them accountable for violations that occurred with different equipment or under different management.

The earliest violations at IES for the new incinerators were taken seriously and cited as NOVs, but they were also kept in perspective of the fact that the incinerators were new and cutting-edge technology that might be expected to have a sporadic start. Additional violations of administrative requirements do not increase the emissions from the plant.

The most recent compliance status at the plant has shown an improvement in the number of breakdowns and reporting violations. The plant personnel have shown a commitment

to improving the violation history with increased monitoring and reporting, improved problem solving and preventative measures for breakdowns, an upgraded computer system, and additional personnel and training.

40. No Notices of Violation (NOVs) were issued during the 8 months of the hearing. Immediately after the hearing, 18 NOVs were issued. Why?

The NOVs in question were under review due to the fact that the indicated excesses might not have been a true opacity. Technical and engineering staff determined that, during the startup period of the incinerator, steam is produced that is read falsely as opacity. Therefore, a large number of the NOVs that had already been issued and potential violations that were under evaluation, had to be reexamined. This reexamination resulted in a number of NOVs being cancelled, a few potential violations being discarded, and the remainder of potential violations being cited with NOVs.

41. Why are there unsettled/outstanding NOVs?

These are NOVs undergoing review and processing. These NOVs are moving through the system following standard evaluation procedures.

Monitoring

42. What is being monitored? What are the results? How can the public get access to monitoring results?

The Continuous Emission Monitors (CEMs) at IES monitor for oxygen, carbon monoxide, and opacity.

The charts and computer data are reviewed several times daily by the plant staff and are checked periodically by Air District inspection staff. The measured parameters are checked against the regulatory standards to determine compliance.

The CEMs can not be turned off while the plant is running. Any missing data from the CEMs is checked against the operations log to determine if the plant was up and running. Missing data during the operational time periods is considered a violation.

IES must submit a monthly report to the District Source Test Section detailing operational status, indicated excesses, and inoperative monitors. These reports are part of the District's file system and may be requested through the Records Department.

43. What is NOT being monitored?

Pollutant emissions, except for carbon monoxide, are not being directly monitored. Pollutant emissions are estimated based upon the results of annual source tests. During these source tests, the incinerator is operated at or near its capacity, and at or near the lower range of temperature. These are the conditions that maximize emissions per pound of waste burned. Based upon test data, an emission factor, expressed as grams of pollutant per ton of waste, is developed for each pollutant. These emission factors are used to calculate emissions during normal operation. Emission factors for bypasses are estimated based upon the measured emissions during normal operations, and engineering

estimates of the effectiveness of the control system for removing pollutants. We do not test the emissions during a bypass because the test takes several hours, and we do not want the incinerator to operate without controls for that long if it can be avoided.

44. Are there local ground level monitors nearby? Where? What are the results? How can the public get access to monitoring results?

There are 16 air monitoring stations for toxic air contaminants in the Bay Area . This network of 16 stations is thought to constitute the largest toxic air contaminant network on a systemized schedule in the nation. The District's air monitoring stations are intended to measure air quality "typical" of the area. They are therefore intentionally sited to avoid being impacted by individual sources.

The compounds sampled include:

benzene	methylene chloride
1,3-butadiene	methyl tert butyl ether
carbon tetrachloride	tetrachloroethylene (perchloroethylene, PERC)
chloroform	toluene
ethylene dibromide (1,2 dibromoethane)	trichloroethylene (TCE)
ethylene dichloride (1,2 dichloroethane)	vinyl chloride
methyl chloroform (1,1,1 trichloroethane, TCA)	

Sampling for heavy metals (lead, nickel, manganese and total chromium) is carried out at the five ARB sites (in Fremont, Richmond, Concord, San Francisco and San Jose).

The monitoring results are reported in the BAAQMD Toxic Air Contaminant Control Program Annual Report, 1997, Volumes I and II, December 1998 and available from the BAAQMD Public Information and Education Division. A report for calendar year 1998 will be available in December 1999.

45. Where is the nearest toxic air monitoring station?

The nearest District toxic air monitoring station is located at 198 Oak Road (Davie Stadium) in Piedmont. There are no stations which directly measure air quality in the Fruitvale area.

46. How are pollution control bypasses regulated?

The combustion gases from the incinerator are required to be scrubbed and filtered any time waste is present in the combustion chamber. Any bypass during waste combustion is a violation of the permit, and will result in a fine. Emissions from any bypasses that occur are counted against the allowed annual emissions. Because emissions during a bypass are much higher than normal emissions, every hour of bypass reduces the facility's allowed throughput by a significant amount.

47. How are pollution control bypasses detected?

Temperature, air flow, and other parameters are monitored and recorded at all times. A pollution control bypass results in a sudden change in several monitored parameters. An

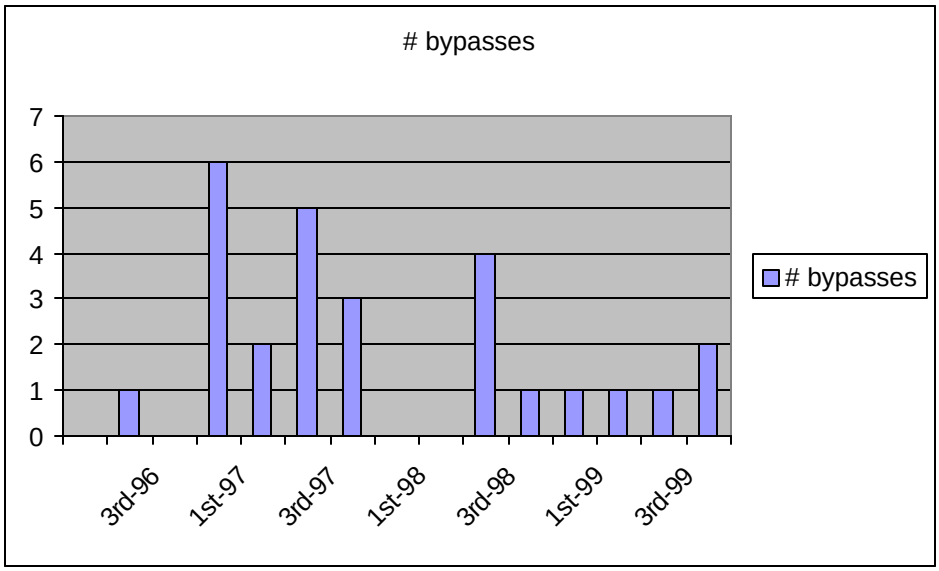
alarm alerts operators, who cease feeding waste to the incinerator and begin working on identifying and resolving the problem. The parametric data are recorded so that the District inspector can review the record and determine if proper procedures were followed. The facility is required to report the incident to the District, both immediately and in the semi-annual compliance reports.

48. What are the emissions during a bypass?

Emissions have not been measured during a bypass condition since sampling takes many hours. Instead, we have estimated emissions using information from IES source tests and EPA literature. Based on six sets of dioxin source tests, controlled dioxin emissions as TEQ average 9.9×10^{-10} pounds per hour per incinerator and we estimate that uncontrolled emissions are 100 times greater or 9.9×10^{-8} pounds per hour.

49. How often do pollution control bypasses occur?

The chart shows the number of bypasses that have occurred since the first of the new



incinerators began operation. Each bypass represents a single event at a single furnace.

50. Is there a requirement that the public be notified/alerted in the event of a bypass?

No, although once the Title V permit has been issued each bypass will be reported in the semi-annual compliance report, which is available to the public. Bypasses do not result in exposures that are immediately dangerous. The contribution of bypasses to long-term exposure has been included in the risk assessment, and the overall risks from long-term exposure are limited by the permit to insignificant levels. Bypasses are of short duration (if a bypass occurs, no more material is fed to the incinerator until the problem has been fixed). As a result, there is no need for an immediate alert. It is important, however, that information on frequency and duration of bypasses be available to the public, as this is one indication of the ability of the facility to comply with applicable requirements.

Risk Assessment

51. How do dioxin emissions from IES compare with emissions from other Bay Area sources? Diesel engines? Other combustion sources?

The dioxin emissions from IES are believed to be very low compared to the dioxin emissions that result from area-wide combustion sources like diesel-fueled mobile sources and residential wood burning as is shown in the chart below. The methodology used in making these emission estimates follows.

Dioxin Emissions from IES

The dioxin emissions from IES are estimated to be about 0.004 grams TEQ per year. This emission estimate was based on: (1) emission factors derived from 18 separate source test runs conducted on the IES incinerators during the three year period 1996 - 1998; and, (2) the most recent information regarding the annual quantity of waste incinerated as reported by IES to the BAAQMD.

Dioxin Emissions from Mobile Sources

In their most recent draft national dioxin inventory (EPA/600/P-98/002Aa, April 1998), U.S. EPA has estimated dioxin emissions from diesel-fueled trucks operating in the United States (for 1995) to be between 10.6 and 106 grams TEQ per year, with a best-estimate of 33.5 grams TEQ per year. (The best-estimate was based on an emission factor of 172 pg TEQ/km. The upper-end of the range was assumed to be 10 times higher than the lower-end, with the range determined by treating the best-estimate as the geometric average of the end points). Using the same approach to estimate dioxin emissions from on-road diesel-fueled trucks in the Bay Area (using 1996 Bay Area truck traffic estimates), yields a range of 0.13 to 1.30 grams TEQ per year, with a best-estimate of 0.41 grams TEQ per year.
Dioxin emissions also occur from other on-road and off-road diesel-fueled mobile sources (e.g., buses, locomotives, construction equipment, and farm equipment). The dioxin emissions from these sources are estimated to be between 0.09 and 0.85 grams TEQ per year, with a best-estimate of 0.27 grams TEQ per year.

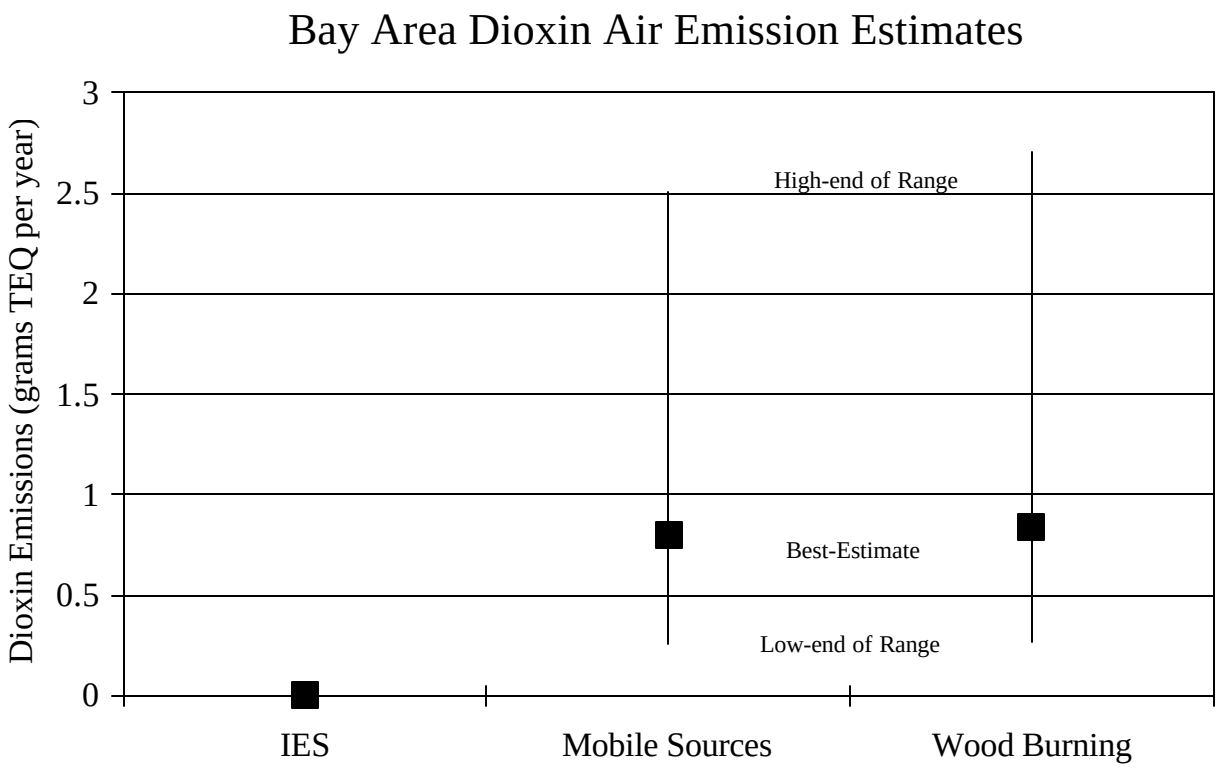
Dioxin emissions also occur from gasoline-fueled mobile sources. EPA estimates the emissions from catalyst-equipped unleaded gasoline-fueled vehicles in the United States to be between 2.0 and 20 grams TEQ per year, with a best-estimate of 6.3 grams TEQ per year

Estimated dioxin emissions from unleaded gasoline vehicles in the Bay Area range from 0.04 to 0.36 grams TEQ per year, with a best-estimate of 0.12 grams TEQ per year. (Note that these dioxin emission estimates do not include off-road gasoline-fueled mobile sources, most of which are not catalyst-equipped; these emissions have not been quantified to date).

Combining the dioxin emission estimates for all mobile sources in the Bay Area yields a total range of 0.26 to 2.51 grams TEQ per year, with a best-estimate of 0.80 grams TEQ per year.

Dioxin Emissions from Residential Wood Burning

In the same inventory, U.S. EPA has estimated dioxin emissions from residential wood burning in the United States (for 1995) to be between 19.8 and 198 grams TEQ per year, with a best-estimate of 62.8 grams TEQ per year. Using the same approach to estimate dioxin emissions for residential wood burning in the Bay Area (using 1996 Bay Area wood burning estimates), yields a range of 0.27 to 2.70 grams TEQ per year, with a best-estimate of 0.84 grams TEQ per year.



52. How does dioxin exposure in East Oakland compare to dioxin exposures in other Bay Area communities? How does it compare to dioxin exposures elsewhere in the state?

The Air District is unaware of any local dioxin exposure data which would make this comparison possible. It is possible, however, to compare the estimated background exposure levels for the general population to the incremental exposures that may result from the dioxin emitted from the IES incinerators. In their most recent draft dioxin health assessment (EPA/600/BP-92/001c, August 94), U.S. EPA estimates a background exposure level of 120 pg TEQ per day for the general population in the United States.

The Air District estimate for potential human dioxin exposures from IES (BAAQMD HRA for IES, Nov. 1997) indicates that it is very unlikely that dioxin emissions from IES would significantly elevate dioxin exposures above background exposure levels. For example, the Nov. 1997 BAAQMD Health Risk Assessment (HRA) estimated the maximum incremental increase in dioxin exposure to be only about 0.2 pg TEQ per day based on the following exposure routes: inhalation, soil ingestion, skin absorption, mother's milk, backyard garden produce ingestion, fish ingestion, and drinking water ingestion. This incremental exposure level is about 0.17 percent of the estimated background dioxin exposure level.

53. How do BAAQMD dioxin emission estimates differ from EPA estimates?

The BAAQMD is unaware of any dioxin emission estimates that EPA has made that are specific to the Bay Area. The U.S. EPA has published several draft **national** dioxin inventories; the most recent updated inventory was released by EPA in April 1998 (EPA/600/P-98/002Aa).

The differences between BAAQMD dioxin emission estimates and those made by EPA are primarily due to the fact that there are significant differences in the distribution, size, and level of control of the dioxin sources in the Bay Area as compared to the United States as a whole. Most importantly, the waste incineration sources that EPA has evaluated account for nearly two-thirds of the national inventory are relatively insignificant in the Bay Area.

In March 1996, the BAAQMD issued an inventory of estimated air emissions of dioxin in the Bay Area based upon source-specific dioxin emissions data collected in the Bay Area, where such data were available. Where such data were not available, dioxin emissions were estimated by combining general emission factors with Bay Area source activity data.

In their 1998 draft national inventory, EPA has updated the emission factors used for estimating dioxin emissions for a number of source categories, including mobile sources and residential wood burning. The District has applied these updated EPA emission factors to produce revised emission estimates for these two source categories (this information was provided to the RWQCB in December 1998). The revised emission estimates are provided in the response to question #56 above.

54. Does this facility pose a health risk to the community?

The available information indicates that air emissions from IES do not pose a **significant** health risk to the community.

This is not the same thing as **no** health risk. It is not possible to have any human activity that results in zero health risk.. The voters of California defined the term "significant" health risk when they adopted Proposition 65. The Air District does not allow new facilities to exceed this risk level. The Air District allows new facilities to exceed a level of one tenth of the "significant" level only if they have utilized Best Available Control

Technology. Permit conditions require IES to keep its risk below the significance threshold.

55. Does the District's risk assessment consider pre-existing body burdens?

No. The District's HRA was performed to estimate the **incremental** health risks associated with air emissions from IES's incinerators. The incremental dioxin exposure associated with IES is insignificant in comparison to the estimated exposures that occur to the general.

56. Does the risk assessment take violations into account?

Yes. The District's HRA assumed that the facility would comply with applicable requirements. Permit conditions, however, were included that require that **all** emissions, including bypass emissions, be considered when evaluating compliance with risk limits. These conditions were not clearly written, and the District is proposing to modify IES's permit condition that limits cancer risk to specify the calculation procedure for considering both routine operation of the facility and short-term upset conditions that may occur.

57. Does the risk assessment take into account the cumulative impacts of this source and others in the area?

No. The District's HRA was performed to estimate the **incremental** health risks associated with air emissions from IES's incinerators. The incremental health risks were found to be within acceptable levels that the District has established for new/modified air emission sources.

58. Does the risk assessment take into account all of the pollutants from the facility?

The District's HRA took into account the toxic air contaminants that are required to be quantified for medical waste incinerators under the State Air Toxics "Hot Spots" Program. These include several gaseous organic compounds (benzene, formaldehyde, and vinyl chloride), a number of semi-volatile compounds (dioxins, polychlorinated biphenyls, napthalene, a group of carcinogenic polycyclic aromatic hydrocarbons, and hydrochloric acid), and a variety of compounds that contain trace-metals (arsenic, beryllium, cadmium, hexavalent chromium, copper, lead, manganese, mercury, nickel, selenium, and zinc). These lists are expanded whenever evidence indicates the likely presence of other toxic compounds at levels that might be detected.

59. What happens to the dioxins and other pollutants that are removed from the stack?

The exhaust from the incinerators is vented to control devices that adsorb dioxins and other pollutants onto carbon. Carbon dust containing the pollutants is filtered from the incinerator exhaust by a baghouse. The dust and ash captured by the baghouse is collected onsite in a covered container and taken to a landfill for disposal. IES currently uses Kettleman Hills (Chem Waste Management), a hazardous waste landfill. B&J outside of Vacaville has been used in the past and may be used again in the future.

60. How do the findings of the draft Dioxin Reassessment differ from the District's assessment of health risks?

First, it is important to note that the Dioxin Reassessment is a DRAFT document, and every copy carries prominently the statement "DRAFT: DO NOT CITE OR QUOTE." EPA has been considering comments on their draft Reassessment made by their Science Advisory Board and others, and have not yet finalized their findings. In the meantime, the analysis contained in the draft and the underlying scientific studies have been and are being considered by Cal/EPA's Office of Environmental Health Hazard Assessment. The District uses the cancer and non-cancer potency factors approved by this agency for use in risk assessments.

The EPA's draft Dioxin Reassessment focused on estimating total dioxin exposures and health effects. EPA indicated that available information indicated that adverse health effects may occur at or near background dioxin exposure levels. The District's HRA was performed to estimate the incremental health risks associated with air emissions from IES's incinerators. As is indicated in the response to question #57, the estimated dioxin exposure levels for the general population are much, much higher than what has been estimated to result from IES emissions alone.

61. Why do a number of scientists and physicians think that the risk assessment is flawed?

The health risk assessment (HRA) follows the methodology that has been approved for regulatory use by California's Office of Environmental Health Hazard Assessment (OEHHA). Virtually every aspect of the methodology has a critic. As new health data become available, OEHHA reviews it and updates the methodology. OEHHA also monitors the scientific debates over dispersion modeling and exposure characterization, and improves the methodology based upon those discussions.

We believe that some of the criticism is based on misunderstandings about the risk assessment itself.

HRA based on single test burn

The risk assessment is based on **all** test burns (6 to date). Allowable throughput limits are adjusted to reflect new data.

HRA doesn't consider violations

Permit conditions require that **all** emissions, including bypass emissions, be considered when evaluating compliance with risk limits. These conditions were not clearly written, and the District is proposing to modify IES's permit condition that limits cancer risk to fix this. The revised condition specifies the calculation procedure for considering both routine operation of the facility and short-term upset conditions that may occur.

HRA doesn't consider pollutants other than dioxin

The District's HRA took into account the toxic air contaminants that are required to be quantified for medical waste incinerators under the State Air Toxics "Hot Spots" Program. These include several gaseous organic compounds (benzene, formaldehyde, and vinyl chloride), a number of semi-volatile compounds (dioxins, polychlorinated biphenyls, naphthalene, a group of carcinogenic polycyclic aromatic hydrocarbons, and hydrochloric acid), and a variety of compounds that contain trace-metals (arsenic, beryllium, cadmium, hexavalent chromium, copper, lead, manganese, mercury, nickel, selenium, and zinc).

Waste burned may not be representative (this is a valid criticism)

The District has the authority to select waste to be burned during the test burns, and the waste quantity needed for test burns is large enough to make it impractical to burn only "clean" waste. Nevertheless, the District can take additional steps to ensure that future test burns use a representative mix of waste.

62. Is there any effort to collect epidemiological data on environmentally-related illnesses?

EPA is beginning an effort, at the national level, to evaluate impacts from urban air toxics. BAAQMD performs air quality monitoring and prepares inventory reports identifying sources of toxics. These are used to calculate risks and identify hotspots.

Environmental Justice

63. How are environmental justice issues addressed in the Title V process?

"Environmental Justice" applies to efforts to ensure that no segment of the population bears disproportionately high and adverse health impacts of pollution. There is concern that polluting facilities are disproportionately located in communities of color, and that as a result, people living in these communities are exposed to unusually high levels of pollution.

All of the District's regulations are based upon the need to protect the public's health and comfort. One specific program explicitly addresses health risk: the Air Toxics program. This program ensures that new sources do not add a significant risk to existing levels. Existing sources are annually reviewed to determine their potential for local impacts, and any facility with a potentially significant impact is required to inform the affected community.

The issuance of a Title V permit cannot result in an increase in emissions, and therefore cannot result in an impact, disparate or otherwise, on a community. This is the basis for the District's belief that issuance of an adequately written Title V permit cannot result in violation of Title VI of the Civil Rights Act. EPA has denied two petitions to object to Title V permits which were based on environmental justice claims. Both cases were referred to EPA's Office of Civil Rights, and are currently under review by that office.

64. What is the District's policy regarding environmental justice?

It is the District's intent to achieve clean and healthful air for all who live and work in the Bay Area, so that no segment of the population, regardless of race, national origin or income, bears disproportionately high and adverse health impacts of air pollution. To that end, the District will:

-- Continue to ensure equal access to complaint resolution, rule and permit evaluation, and public resources, and assure equal enforcement activities.

-- Continue outreach and education programs to strengthen the public's ability to participate in the District's Plan and rule development, and in community and individual activities for clean air.

-- Solicit concerns and ideas from communities where there may be disproportionately high and adverse health effects.

-- Work proactively to improve air quality for those disproportionately impacted communities through such actions as appropriate, including implementation of activities pertaining to pollution prevention; implementation of less-polluting alternative technologies; data collection and analysis; technical assistance; CEQA comments on project reviews; and support of state legislation and local ordinances as appropriate.

65. Does Title VI of the Civil Rights Act apply to District?

The District is subject to Title VI. Title VI prohibits any action of the District to result in a discriminatory impact. Because the Title V permit documents existing requirements, and does not authorize any legal activity not already in place, the District believes that issuance of the permit does not result in an impact, disparate or otherwise.

66. Can the District deny the permit if it can be shown that permit issuance would violate Title VI of the Civil Rights Act?

Only if the non-compliance could be shown to result in a violation of the Clean Air Act.

Trust of the District

General

67. Why did the District meet with IES and De La Fuente and Perata?

We were invited to the meeting by Senator Perata. When a legislator invites a regulator to a meeting, the regulator attends.

Operating Permit Appeal

68. Have hearings been held regarding this facility?

Several public hearings have been held regarding this facility and its activities. District public hearings include:

1990 Public workshops held by District staff to develop a control measure for Medical Waste Incinerators (Regulation 11-13)

1991 Public hearing held by the District's Board of Directors to adopt a control measure for Medical Waste Incinerators

1995 Public hearings held by the Hearing Board which resulted in an Order of Abatement and a requirement to replace the old incinerators.

1997 Public hearings held by the Hearing Board to review an appeal of the issuance of the operating permit for the new incinerators.

1999 Public workshop and public hearing on Title V permit.

69. If public hearings have been held, why are some activists claiming otherwise?

"There has never been a legitimate public hearing or public environmental review process regarding the IES incinerators. Legitimate hearings take place when the community can participate, when the hearings are held in the community, when the public can speak freely, and when the hearing agency officials are not being paid to work for the company that they are hearing an appeal on. It is for these reasons that we believe that there never has been a real hearing on IES.

"The so-called hearings about IES that took place two years ago at the Air District Appeals Board were a farce. Two of the four Air District Appeals Board hearing officers revealed after they ruled in favor of IES/Norcal that they were getting paid to do work for a Norcal company at the very same time they were supposed to be impartial hearing officers on our appeal. In addition, people attempting to testify at the appeals "hearings" were often cut off and interrupted by the Hearing Officer. These meetings were also held in San Francisco, at a time and place virtually impossible for the impacted community to attend. When a hearing was finally scheduled in the East Oakland community, the nearly 200 people who showed up found there was inadequate seating and no public address system. When the audience complained about the lack of seating or sound system, the Appeals Board hearing officer adjourned the meeting before anyone could speak. It is for these reasons that there must be a legitimate public hearing and environmental review process on the IES incinerators which emit dioxin, mercury and other toxic contaminants into our environment." -- Bradley Angel, Greenaction

70. COMMENT: The appeal hearing treated public in arrogant fashion. The District's behavior during the hearing was condescending & at times dishonest. There was no public address system. There were inadequate seating arrangements.

71. Prior to the hearings regarding the appeal of issuance of IES' District permit, one of the five hearing board members recused himself. Why?

Hearing Board member Jim Hughes, MD, recused himself because of two reasons. First, Dr. Hughes stated he was a practicing physician at Sutter Hospital in Oakland which he believed sent its medical waste to IES for incineration. Second, Dr. Hughes stated that he believed incineration of medical waste to be a vital and necessary component of infectious waste destruction. Thus, Dr. Hughes felt he could not properly maintain a neutral position on the appeal.

72. During those hearings, two of the remaining four hearing board members were paid consultants for Sunset Scavenger. Sunset Scavenger is owned by Norcal, the parent company that wholly owns IES. Why did they not remove themselves from the process to avoid appearance of a conflict of interest?

The two hearing board members were not paid consultants to Norcal/Sunset Scavenger during the hearings. The matter was brought to the public's attention after the opinion was signed in order to provide full and complete disclosure. Outside counsel was retained to in order to assure that the inquiry was conducted with the utmost integrity. Outside counsel and conducted a thorough evaluation and concluded that no conflict of interest existed.

The facts of the matter are as follows. Dr. Greenberg was retained by a law firm representing Sunset Scavenger on a matter unrelated to the permit appeal of IES before the Hearing Board. The Hearing Board is a part-time board and thus all members have professions and jobs outside the BAAQMD. At the time of the initial contact, the evidentiary portion of the hearing was completed and all that remained was Hearing Board deliberations and decision writing.

By the time Dr. Greenberg started working on the Sunset case for the law firm, the Hearing Board deliberations were over, the Board had ruled, and the decision was being written. The second Hearing Board member, Ms. Schauer, was a subcontractor to Dr. Greenberg so it stood that she had no conflict as well.

In summary, two Hearing Board members served as consultants to a law firm which represented Sunset Scavenger. The Hearing Board members entered into this relationship with the law firm after the evidentiary portion of the IES Permit Appeal hearings. They had no contract with Sunset Scavenger and did not report to that company in any way. They were paid by the law firm. They had no knowledge of the relationship of Sunset with Norcal nor of the relationship of IES to Norcal until after the hearings and deliberations. These relationships were discovered by one of the members (Dr. Greenberg) who voluntarily brought the matter forward. Outside legal counsel was

retained to investigate. They concluded that no conflict of interest existed whatsoever. The matter was made public at the request of Hearing Board member Dr. Greenberg.

Issues beyond the scope of the District' authority

73. Are there alternatives to incineration? If so, who can compel their use?

Almost all of the materials incinerated are "red bag" waste, which may not be disposed of in landfills in California. Not all of the material in a "red bag", however, is waste requiring incineration. IES cannot open "red bags" to separate out this non-pathological trash.

Hospitals may reduce the amount of waste requiring incineration by improving training and making proper sorting more convenient (or even possible). This approach is called "waste reduction." The state legislature could compel improved waste management practices.

Hospitals can work to reduce the objectionable elements of the waste stream. These include heavy metals and chlorinated plastics. Proper sorting and substitution of new materials could substantially reduce or even eliminate these contaminants from the waste stream going to the incinerator.

Even with the best sorting practices, and aggressive elimination of wastes not requiring incineration, an irreducible minimum amount of waste requiring incineration will be generated by hospitals. Such wastes include chemotherapy waste and pharmaceutical wastes. Under current state law, this waste must either be incinerated in California, shipped to an incinerator outside of California, or shipped to a landfill in a state that does not require this material to be incinerated.

The state legislature could eliminate the requirement that these wastes be incinerated, allowing these wastes to be landfilled without being destroyed. The state legislature could also prohibit incineration, requiring disposal of theses wastes outside of the state.

74. IES consultants claim that there are dangerous emissions associated with autoclaving & microwaving. Is this correct, and how do these emissions compare with incineration emissions?

The Air District is collecting information on emissions from autoclaves and microwave units that process medical waste. We have not reviewed a permit application for an autoclave, and therefore have not conducted a risk assessment. We do not have sufficient information available at this time to make any statements.

75. If microwaving waste emits dangerous pollutants, why doesn't the existing microwave unit have a permit?

The Air District is reviewing its permitting policy for autoclaves and microwave units that process medical waste. The Air District may require the existing autoclave to obtain an operating permit. We will be reviewing the permits issued for autoclaves in other air districts as part of our review.

76. What is the Air District doing to reduce incineration at IES? What interaction does the District have with other stakeholders to encourage or require waste minimization?

The staff participates with other agencies to highlight common areas of concern. We participate in meetings of the Oakland/San Francisco Dioxin Reduction Task force and the Alameda County Medical Waste Reduction Group.

77. Can the District require IES to only burn waste categories that cannot be handled in other ways?

Not by administrative action (through permit limitations, for example). The Air District Board could amend the existing medical waste incinerator rule (Regulation 11-13) to limit waste combustion.

78. Does the permit require consideration of impacts on worker health?

No. The permit addresses air pollution issues only, and those all concern offsite impacts.

79. Have workers at IES been tested for exposure to toxic chemicals?

No. Workers are given periodic medical exams. These reportedly do not routinely involve blood samples, which would be required to test for exposure to toxic chemicals.